

Appl. No. 10/773,371
SUPPLEMENTAL AMENDMENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 16 (Canceled)

17. (Currently Amended) A method for preparing an ink-jet recording sheet, comprising the steps of:

(a) coating on, a substrate, an aqueous coating composition containing a hydrophilic binder and inorganic particles to form a porous layer having a surface;

(b) drying the porous layer over a period, wherein the period comprises at least a constant drying rate period defined by a drying period over which the surface of the porous layer has a temperature that remains constant and a falling drying rate period defined by a drying period over which the surface of the porous layer has a temperature which rises; and

(c) incorporating a solution containing an additive selected from the group consisting of a surface active agent, a hardener for the hydrophilic binder, an image stabilizer, a water-soluble polyvalent metal compound, a pH moderator and a cationic fixing

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agent, into the porous layer after the completion of the constant drying rate period in the same coating line used for coating the aqueous coating composition to form the porous layer.

18. (Currently Amended) A method for preparing an ink-jet recording sheet, comprising the steps of:

(a) coating, on a substrate, an aqueous coating composition containing a hydrophilic binder and inorganic particles to form a porous layer having a surface;

(b) drying the porous layer over a period, wherein the period comprises at least a constant drying rate period defined by a drying period over which the surface of the porous layer has a temperature that remains constant and a falling drying rate period defined by a drying period over which the surface of the porous layer has a temperature which rises; and

(c) incorporating a solution containing an additive selected from the group consisting of a surface active agent, a hardener for the hydrophilic binder, an image stabilizer, a water-soluble polyvalent metal compound, a pH moderator and a cationic fixing agent, into the porous layer after the completion of the constant drying rate period and before the completion of the falling drying rate period.

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Claim 19 (Canceled).

20. (Previously Presented) The method for preparing the ink-jet recording sheet of claim 17, wherein the incorporation of the solution containing an additive on the porous layer is carried out at the moment when the following formula is satisfied:

$$V_{wp} + V_s \leq 1.5 V_{vp},$$

wherein V_{wp} is the volume content of water in the porous layer, V_s is the volume of the solution containing an additive and V_{vp} is the void volume of the porous layer at a drying end point.

21. (Original) The method for preparing the ink-jet recording sheet of claim 17, wherein the solution containing an additive comprises water or a mixture of water and an organic solvent which is miscible with water.

22. (Original) The method for preparing the ink-jet recording sheet of claim 17, wherein the ink-jet recording sheet is wound in a roll after the step (c) without substantially drying.

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23. (Original) The method for preparing the ink-jet recording sheet of claim 17, wherein the substrate is a resin coated paper comprising paper covered with a polyolefin resin on both sides of the paper.

24. (Original) The method for preparing the ink-jet recording sheet of claim 23, wherein the content of water in the paper is at most 8 weight % of the paper.

25. (Previously Presented) The method for preparing the ink-jet recording sheet of claim 23, wherein the incorporation of the solution containing an additive on the porous layer is carried out at the moment when the following formula is satisfied:

$$M_{wp} + M_{ws} \leq 0.07 M_p,$$

wherein M_{wp} is the weight content of water in the porous layer , M_{ws} is the weight content of water in the solution containing an additive, and M_p is the weight of the paper used for the substrate.

26. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the additive in the solution is [[a]] the surface active agent.

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27. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the viscosity of the solution containing ~~[[an]]~~ the additive is at most 100 mPa.s.

28. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the additive of the solution is ~~[[a]]~~ the hardener for the hydrophilic binder.

29. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the additive in the solution is ~~[[an]]~~ the image stabilizer.

30. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the additive in the solution is ~~[[a]]~~ the water-soluble polyvalent metal compound.

31. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the pH value of the solution containing ~~[[an]]~~ the additive is from 1 to 5.

32. (Currently Amended) The method for preparing the ink-jet recording sheet of claim 17, wherein the pH value of the solution containing ~~[[an]]~~ the additive is from 8 to 13.